‘From bricks to clicks’: hybrid commercial spaces in the landscape of early literacy and learning

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Introduction

Parents seek information and advice about children’s early learning and development from many sources. Traditional ‘human resources’ such as family and friends are important. But so too are government-supported programs and products in libraries and health clinics as well as commercially-produced resources found in department stores, bookshops and toy stores (Nichols, Nixon, Pudney and Jurvansuu, 2009). In this paper I explore the phenomenon in which a diversity of *spaces*— including the virtual spaces of the internet—are becoming an integral part of the landscape of parenting and early years’ literacy and learning. Here I confine my discussion to *commercial* spaces—and the marketplace resources circulated in them—as they bring together, both materially and symbolically, the concepts of parenting, consumption, and early learning. The argument that the field of *early literacy education* should attend to the workings of commerce rests on the fact that early childhood has become commodified, and that ‘contemporary parenthood is always and already embedded in consumerism’ (Seiter, 1995: 3). As Daniel Cook (2009) argues, ‘parental caring practices entail engagement with the commercial world in some manner—with its imagery and meanings as well as material things’ (321). Children’s literacy learning and development in the early years of life, and adults’ participation in that, is no exception. I focus here on commercial spaces because of their role in circulating persuasive messages about literacy in the early years and because they are pervasive in the lives of contemporary parents and children.

Because of the increasingly globalised economies in westernized ‘developed’ societies, commercial spaces have also become important *contexts* for education and educational research. The commodification and marketisation of education (e.g. Burch, 2009; Rizvi and Lingard, 2010), has meant that commercial spaces and institutions operate, among other things, as *pedagogic sites* for parents and children (Kellner, 1995; Nixon, 1998). That is, along with publicly funded and not-for-profit organizations, commercial organizations actively promote and circulate particular perspectives on parenting and early literacy and learning, and particular strategies and products designed to support this. Policy analysts have argued that educators need to know more about the policy technologies that support this process and related forms of ‘hidden privatization’ (Ball & Youdell, 2008) and ‘hidden markets’ (Burch, 2009) in education. In this paper I discuss aspects of this phenomenon as it pertains to education and the preschool years. For example, in neo-liberal conditions, government services have become corporatized and their resources are increasingly developed ‘in partnership’ with non-profit organizations (such as charitable foundations) and commercial providers (such as producers of baby products) rather than in clear opposition to or distinction from them. This means that in practice it is difficult, if not impossible, to maintain any clear or unproblematic distinctions between commercial and non-commercial spaces; rather, they are *hybrid* and *fluid*.

Research design and conceptual resources

This discussion draws on a broader study of how resources for and about learning in the early years of life were mobilised within and across specific sites in the lifeworlds of particular families living in specific places.[i] Our research questions included:

- How are resources for early literacy learning produced for and circulated among parents?
- How are resources spatially located and networked in community, government and commercial spaces?
- What ideas about children's early learning and development circulate through these information networks?

The project took place in two regions in Australia and one in the USA, each with a different demographic profile but located within relatively easy reach of the research team. Because we aimed to study the material and semiotic affordances of particular *places*, we drew on geosemiotics—or the study of discourses, people and objects in place and across spaces—as an important conceptual resource (Scollon and Scollon, 2003). We combined this with ethnographic approaches and Actor Network Theory (e.g. Law, 1999; Murdoch, 1998), to study how particular spaces produced multiple social meanings about parenting for successful early learning and how they set parents, artefacts and ideas on particular material and virtual trajectories into, across and out of those spaces.

In order to generate data for analysis, we used ethnographic approaches such as observations and interviews carried out in homes, community based playgroups, government services locations and commercial spaces such as retail outlets. Central to our data collection methods was the 'ecological survey' which we based on the work of Good and colleagues (Good et al., 1997) and Neuman and Celano (Neuman and Celano, 2001). Their studies combined traditional ethnographic methods of observation and interviewing with more spatially oriented methods including walking streets and drawing detailed maps of the location of community sites, information points and literacy resources.

Parents, children and consumption in the shopping mall

Each region in our study included a diversity of places that parents could access to support children's early learning including at least one shopping mall. Although the study of commercial spaces such as shops and malls has not figured largely in the field of children's early literacy, the *semiotics* of these spaces has been the subject of academic interest in fields such as sociology and urban design (e.g. Goss, 1993; Gottdiener, 2003) where their significance as environments for families and children has been explored (e.g. Chin, 1993; Cook, 2003; Seiter, 1995). In this paper I draw on our study of the commercial spaces of the shopping mall we named Gumtree Plaza which is both geographically located in the suburbs of an Australian city and also part of the globally networked commercial space of the shopping centre corporation the Westfield Group.

Gumtree Plaza was built in Midborough, a suburban region located within a large metropolitan local government district ten miles distant from the centre of a capital city of a southern state of Australia. Midborough includes a mix of high and low socio-economic areas. There are newer housing developments for young middle-to-upper-middle class families and a cluster of neighbourhoods which contain above-average percentages of adults in lower paid service and manual occupations and in rental accommodation. Designed in the late 1960s, the central Midborough hub is a busy commercial and local government precinct and a major transport and services hub for the northern suburbs of the city. The hub includes the very large covered Gumtree Plaza shopping centre located on one side of a major

highway. On the other side are sporting, community and cultural facilities which include local government council offices built above a modern well-equipped library that serves the whole district. Urban planning has favoured centralisation of services in the hub and this makes access to transport crucial in order to access services. A bus station and extensive car parking areas that surround Gumtree Plaza make it an attractive destination for people living in the region. In summary, this shopping mall is both a significant social and commercial space for parents who live locally in the Midborough region but also part of the global space of the Westfield Group.

During our ecological survey of commercial spaces we examined how and where parenting and early literacy-related texts were situated and positioned; where parents congregated and how they acted in these spaces; and how parents were invited to enter into social and textual networks that could be traced into and out of these spaces, even as they went beyond the geographical boundaries of local surrounds including onto the world wide web. The 'commercial ethnography' dimension of our study involved analyzing the ways in which commercial organisations operated as sponsors of literacy (Brandt, 2002) while encouraging parents to both consume commercially produced goods and services, and also to participate in and take responsibility for children's early learning and development—an objective shared by governments worldwide in neo-liberal conditions (Rizvi and Lingard, 2010).

In the case of Gumtree Plaza, the research team walked and observed the mall and surrounding area on multiple occasions. We focussed on the material pathways parents of young children were invited to take once they arrived at the centre on foot or by bus, and how they were directed to find and secure convenient car parking (e.g. in spaces designated as 'Parking for Prams'). We noted how signs and mall layout led parents through the spaces of the mall and highlighted passageways towards the 'concierge desks' where they could get help with directions or borrow 'mobility facilities' such as 'kiddy cruisers' and 'fire chief carts' to assist them to traverse the vast spaces of the mall with young children in tow. Using concepts from geosemiotics and network theory, we also considered where products were placed and we identified and followed the semiotic pathways that led parents from signs and products located in commercial spaces within the mall to spaces and organisations located outside its confines such as libraries and websites (see Nichols, Nixon & Rowsell, 2009).

Shop, play and learn with the Westfield family

In this section I consider one specific aspect of the geosemiotics of the landscape of parenting and early years learning— the ways in which commercial spaces designed for parents responsible for educating pre-school children are becoming hybrid spaces. In particular, I examine how the Westfield shopping centre in Midborough illustrates a more widespread phenomenon in which the landscape of early learning is increasingly a hybrid mix of material and virtual and local and global spaces. The political economy of the Westfield Group is relevant here. Westfield centres are located throughout the world in New Zealand, Australia, the USA and the UK. They occupy a globally networked commercial space described as the 'global brandspace' of the Westfield Group (Westfield Group, 'Corporate. BrandSpace', 2008)[ii]. At the same time, the services they offer their clients, customers and surrounding communities are promoted as being tailored to suit *local* markets and community needs.

Because of the importance of families to the success of suburban shopping centres worldwide, it is perhaps not surprising that the Westfield Group uses the slogans 'join the Westfield family' and 'We are family', and the icon 'WFamily', to suggest that their shopping centres are family-friendly and potentially an integral part of family life. They both belong to one *global* 'family' brandspace and, at the same time, aspire to become part of the lives of *local* families who access their centres. In fact, as the corporate website suggests, in

Australia Westfield malls are *literally* central to many families' lives because '[t]hree-quarters of the Australian population lives within half and hour's drive of a Westfield shopping centre' (Westfield Group, 'Corporate. Brandspace', 2008). In this sense, the commercial spaces of Westfield shopping centres complicate notions of local and global; they are a hybrid of both.

So how does this global company set out to attract young parents to visit its locally situated material commercial spaces and their virtual counterparts on the web? The Westfield Group manages the design, construction, leasing, management and marketing of all its shopping centres. An important aspect of current marketing strategy involves what is known as 'interactive' and 'cross-channel' marketing which is designed to move potential consumers '*from brick to clicks*'; that is from the material space of *bricks* and mortar to the corresponding online space (*clicks*) occupied by each Westfield centre website. For example, home pages on the websites of Westfield malls world-wide invite customers to 'follow us on twitter' and 'join us on Facebook'.

Taken together, shopping centre facilities and centre websites provide what the world of marketing calls important 'touchpoints' for the company, where touchpoints refer to *interactions* with potential customers (Mealey, 2010). Touchpoints designed to connect Westfield shopping centres with local families take both material and virtual form. They include printed WFamily booklets and flyers found at concierge desks in mall spaces, but also virtual spaces on Westfield centre websites devoted to 'families' and 'kids'. The commercial objective is to connect with parents in order to encourage them to make return visits to the material as well as the virtual spaces of Westfield centres. Membership of WKids Club (see Figure 1), for example, entitles kids to participate in 'free kids events' held in the centres, which in turn requires the family to travel to the actual mall. But membership also entitles families to receive 'special offers, regular newsletters and updates on all centre activities' (Westfield Group, 'For-the-Kids. Kids Club', 2010) delivered by email. That is, membership is designed to lead parents and children up material pathways to the site of each Westfield centre's retail shops, but also to maximise the possibility of ongoing *connection* and *information flows* between centre management, parents and households along the virtual pathways of the internet.

Insert Figure 1 about here

Other methods of encouraging parents to traverse hybrid material-virtual pathways and networks include offering shopping voucher rewards for stories contributed to the 'We are Family' website, rewards which can only be redeemed by visiting the centres. Stories are invited on such topics as how to keep kids entertained while travelling, but also how to specifically encourage early literacy and learning. For example, the booklet titled 'We are Family. Hints and tips by Mums for Mums' (see Figure 2) includes a double page spread of published extracts from Kids' Club mothers' contributions to the website. These are reproduced under editorial commentary which emphasises the value of reading and describes the kinds of pre-reading behaviours that are likely to encourage children to become keen readers. In addition, parents are invited to submit stories about how their own children came to love reading:

> *Love those books.*
> A child's literacy and language development begins *long before the start of any formal education*, and they're *never too young* to be introduced to the magical world of words. Hearing stories, being read to, listened to and talked with from babyhood onwards will *set them up for life*. How did your kids discover the love of reading – or

how do you plan to encourage them to enjoy curling up with a good book? (Westfield/ACP Magazines, 2008: 38, italics added.)

This text is a complex mix of commercial advertising and general educational advice; it contains advice for parents about how to support early literacy but it also contains advertising for specific shops and products that parents might use to *support* that process, and which they are able to access by visiting their local Westfield centre. For example, many parents' stories emphasise that they buy books as gifts and, inset on one page of the 'We are Family' booklet is the promotion of a Westfield centre bookshop chain and its 'Reading suggestions for little bookworms', one of a series of 'Kids' Reading Guides' that the bookstore chain produces (see Figure 3).

Insert figures 2 and 3 about here

Other touchpoints that enable the Westfield Group to connect with parents include spaces in the shopping centres designated as play areas. Denoted as *Playworld* in the UK and Australia, and *Play Space* in the USA, these are spaces designed to be safe for children aged under six years while their parents keep an eye on them, socialise and rest before continuing their shopping. However, the ways in which these spaces are designed, signposted and described online not only reference the *material* facilities, but also have powerful *semiotic* and *ideological* dimensions (Scollon and Scollon, 2003). They suggest that Westfield centres play a role in assisting parents to integrate play and learning into their family's regular routines. At the same time, the semiotics of these places construct selective visions of valuable forms of, and purposes for, play and learning in the lives of preschool children.

From a geosemiotic point of view, the design of the space of Kids' Playworld in Gumtree Plaza illustrates the discursive tensions that surround dominant social constructions of play and childhood. As scholars have noted, government policy, research and the media have historically embraced two opposing views of the nature of childhood: visions of childhood as 'a paradise garden', and visions of childhood as a time of danger, a time when innocence is threatened (e.g. Buckingham, 2000; Kline, 1993). Traces of similar tensions are evident in Gumtree Playworld. For example, even though the space is located indoors, and is quite small, enclosed and confined, large colourful posters fixed to the outside of the space—presumably designed to attract passing parents and children—depict children playing outdoors, climbing and swinging upside-down from playground structures and trees (see Figure 4). That is, children are shown playing without being subject to restraint, without adult supervision, in the open air, in a space that is a version of the paradise garden. However, this is simultaneously at odds with a large sign attached to the fence that borders the area which displays 'Playworld rules'. This list of rules suggests the very real constraints under which the play space can be used (see Figure 5). For example, not only must parents and guardians 'supervise children at all times', a list of interdictions addresses both adult and child. These include: 'do not climb on the netting', 'no shoes, socks must be worn', 'no sharp objects', and 'no chewing gum'. As a space 'for children to learn and play' its design, and the signs that surround Playworld, send a message to parents and children that commercial spaces are concerned to ensure children's physical safety, and also have a legitimate part to play in their early socialisation and learning.

Insert Figures 4 and 5 about here

Online descriptions of Westfield play spaces worldwide make even more explicit for parents the supportive *pedagogical* role that shopping centre spaces can perform in relation to early years' development:

> We have two great play areas for kids aged 2 - 5 years, with slides, tunnels and climbing equipment, as well as interactive play areas. It's free and you are welcome to stay as long as you like, as long you keep a close eye on your kids at all times! The kids will have hours of fun. (Westfield Group, 'Kids Playworld', Burwood Australia, 2010)

> Let your little ones blow off some steam in a specially designed play area for children 5 years and under. Watch as they discover the life size pin screen, marvel at the mini-periscope, or play hide and seek in the tunnel and den. (Westfield Group, 'Kids Services. Playworld', London UK, 2008)

> A fun place for children to learn and play is the Westfield Play Space. Kids can climb and explore the bright, colorful play area with animal characters, large puzzles, and plenty of space to sit and play with other children. (Westfield Group, 'Concierge Services. PlaySpace', Westfield Northern USA, 2010)

These online descriptions of play spaces in three countries make explicit the ways in which centres support parents to provide stimulating spaces in which their preschool children can participate in valuable learning and play. As the text explains, learning while playing happens when children engage in art-based activities and play (*pin screen, bright colours*); in activities that engage the mind (*periscope, puzzles, interactive activities*) and the body (*explore, space to play, slides, tunnels and climbing equipment*); and in activities that include other children (*hide and seek, space to play with other children*). In this way, these promotional materials assume an authoritative role in relation to the connections between fun, play, learning and child development that parents need to know if they are to lay successful foundations for their children's future success. At the same time, a sense of connectedness and flow between offline and online commercial spaces—that together serve to support and network parents—is established.

Hybrid pathways to early literacy learning

Thus far I have described some of the ways in which a global shopping centre corporation encourages parents to enter the commercial spaces of its shopping centres, and to move back and forth between these physically located sites and their virtual counterparts. I have also illustrated how the promise to foster children's play and learning, including their early literacy reading development, is sometimes used as an enticement for parents with young children to visit the centres and their websites. In this section I explain how we identified and audited the commercial spaces in Gumtree Plaza specifically devoted to parenting and early literacy and learning resources and illustrate our finding that there was, at times, a similar process in operation to the one described above. That is, network tracing arising from our ecological survey sometimes led us from the material spaces of retail outlets in Gumtree Plaza to online global 'brandspaces'. Below I discuss this phenomenon using the case of a leading manufacturer of educational and interactive toys designed to support children's early learning, including their literacy learning.

At the time of our ecological survey, Gumtree Plaza contained 237 shops, a food court and a cinema complex. After we had canvassed all stores for their provision of parenting and/or early learning resources, we returned to more closely examine 18 of them that stocked

relevant resources: a large toy store, a book store, three newsagents, a department store, three supermarkets, three variety stores (similar to Walmart in the USA), two chemists, a post office, a games store, a computer software store and a shop run by the Australian Broadcasting Commission (ABC). In each store we noted the design, location and signage of spaces designated in some way as being 'for parents' or 'for young children', and conducted an audit of the resources they contained (e.g. magazines, books, toys, activity sets). We also observed families' entry into and movement through the spaces of several stores and, where permission was given, we took photographs of store layouts and products. We did not have human research ethics permission to approach or interview parents in the mall.

As other scholars have found in studies of similar retail stores (e.g. Seiter, 1995; Cook, 2003), the semiotics of spaces and signs in discount chains and specialty toy stores in Gumtree Plaza led people through sections that differentiated products (e.g. books, toys) and targeted differentiated niche markets. Firstly, spatial interdiction, whereby age and gender are segregated (e.g. girls and boys, infants and toddlers), was evident in stores we audited and this applied a 'development sequence' to the layout of the store and to people's experience of moving through it (Cook, 2003, p. 163). Secondly, in spaces specifically devoted to *early years learning*, further semiotic and spatial differentiations were noted. In KMart, for example, fiction and activity books were displayed according to categories such as 'storytime', 'colour and fun' and 'educational'. In Toys-'R'-Us, toys were displayed and signposted to designate both brand and target age range (e.g. Little Tikes Infant, Playskool Preschool Toys). Moreover, it was clear that very young children—infants and preschoolers—were seen as significant age-differentiated consumer categories (e.g. signs read: Fisher-Price *Infant* Toys, Little Tikes *Preschool*, and so on) with vast areas of space in the store devoted to the 0-5 years age group. That is, we found clear evidence that children aged 0-5 years and their carers were considered to constitute an important market that could also be further differentiated by age group and gender. The message is that each group has different early learning needs that can be met by the range of products on offer.

As Cook (2003) has argued, commercial spaces are *aspirational* spaces in which 'desired and desirable identities and selves' (p. 161) are displayed. Spaces devoted to early learning or 'educational' resources are significant examples of this. Here products are displayed and promoted in ways designed to attract adults who wish to confer on young children various kinds of 'positional advantage' (Bridges, 1994) in relation to their educational and life chances. The target audience is understood to be willing and able to spend in order to ensure happiness and educational success for the children who will receive the products they purchase. As Seiter notes (1995), what she calls 'niche-marketed, educational or classic toys' (p. 232) appeal to parents who either desire, or already have, cultural capital (p. 232). She adds that the strategy of the toy industry is double-edged: it not only targets *parents* using educational toys, it also targets *children* using 'mass-marketed promotional toys' (p. 232). Certainly the layout of stores we canvassed tended to segregate mass-marketed 'action' or 'doll' type toys from toys considered to be 'educational'. However, there was also clear evidence of a more recent phenomenon in which characters from mass-marketed toys (e.g. Thomas the Tank Engine, Dora the Explorer) have been cross-licensed for use in the production of explicitly 'educational' toys, thereby expanding the range of what scholars have described as hybrid 'edutainment' products (Buckingham and Scanlon, 2003). In spaces like this at least, any simple distinction between popular culture toys and educational toys no longer holds.

Due to length limitations, I confine my focus in the remainder of the paper to the sub-category of educational toys known in the industry as 'electronic and interactive' toys. These are toys that include various electronic and computerised features. Some of them are designed to connect to more sophisticated computers, and to enable internet connectivity from the toys.

They can therefore be compared with toy/web hybrids (see Wohlwend et al. this volume). In our audit of Gumtree Plaza, we found toys designed for infants as young as 6 months old that were labelled 'electronic learning aids'. These generally incorporated movement, voice and music. Other toys in this category imitated contemporary adult communication technologies, including digital technologies, in products like the 'phonics radio', the camera phone and a talking video phone. (The Toys-R-Us catalogue describes these as 'pretend electronics'.) Many shelves of large toy and department stores were also devoted to toys described as laptop computers. For example, advertised as being designed for 'preschool and nursery levels', *Little Learner Laptops* (Oregon Scientific) were packaged in bright cases that incorporated licensed Barbie, Disney and Hot Wheels Racing icons and characters. Displayed alongside these on store shelves, V-Tech brand toy laptops featured licensed characters Bob the Builder and Dora the Explorer. The latter, promoted for children from 3 years of age, is described online as featuring '10 activities that teach letter names, the alphabet, words, spelling, simple sums and basic Spanish phrases' (Toys-'R'-Us Australia, 'Top 10 Little Learners', 2010). In their online promotional material, several brands similarly claimed to connect with the 'pre-school curriculum' in literacy and maths and to assist children's early years' literacy and numeracy development.

Much of the product packaging we noted in stores was densely textual and explained to parents in great detail the educational benefits the child was likely to enjoy as result of playing with the product. Typically it was claimed that the toy offered 'fun learning games and activities' and specific assistance with fine motor skills and emergent literacy. For example, one toy laptop supposedly 'teaches, letters, builds vocabulary, introduces shapes and colours, develops hand-eye coordination, teaches upper and lower case letters' (Barbie Little Learner Electronic Learning Aid). In some cases the toy laptops promised not only to provide fun and learning for children but also to assist parents *to monitor and assess* that learning. For example, designed for children aged 4-7 years, text on the V-Tech Electronic Learning Computer packaging claimed that this 'challenger laptop' is 'a cool way to learn' and 'makes learning fun'. At the same time, parents were informed that they could 'chart [children's] A+ potential with the progress tracker'. For parents, this kind of monitoring feature is likely to be valued in the contemporary landscape of early learning policy in Australia in which the testing of literacy and numeracy now begins when children enter school and the 'school-readiness' stakes have been raised accordingly (Millei and Lee, 2007).

The importance of *online* information for *offline* consumption described earlier in relation to Westfield centres was also evident in relation to educational toys. For example, the text on toy packaging often refers parents to the brand website which in turn provides more information about the product range—as well as the toys' purposes and educational value—than can be included on product packaging. In the case of the V-Tech brand, the company describes itself online as 'the creator of the Electronic Learning Products Category and leader in kids laptops and games' and promotes its range of 'Learning Laptops' as follows:

> Featuring an extensive range of educational activities, these Electronic Learning Computers are professional looking, sleek in design and the ultimate in personal tutorage. Kids simply won't be able to wait to get down to the business of learning! (Modern Brands, 'V-Tech Learning Laptops', 2010)

Here learning is described as a serious 'business' that kids won't be able to wait to experience because it will be that much fun (cf. Nixon, 1998). And here too the company attempts to convince parents that they need not only to *support* children's early learning ('help them meet their milestones' and 'provide personal tutorage'), but also *to monitor* their learning progress. All three elements of the semiotics of the toys in 'place'—location in store and aisle pattern;

position and text on packaging; and location and description on the website—work together to support the message that such toys simultaneously serve the perceived needs of both parent and child.

Learning offline and online with electronic interactive toys: case study

A brand of educational books and toys that figured significantly in our study was LeapFrog™. As the brand most frequently cited by the 30 parents we interviewed, LeapFrog also had a considerable presence compared with other early years learning products in our audit of Gumtree Plaza where it was sold in five stores: two department stores, two variety stores and a toy store. While the companies Hasbro and Mattell also have a significant market share in this category, LeapFrog products are popular electronic interactive toys that target adults concerned to provide educationally worthwhile toys for children. The company LeapFrog Enterprises was founded by a lawyer in California, USA in 1995, following input from a professor of education at Stanford University, and became a public company in 2002. Since then it has been shaped by input from significant figures in the worlds of education, psychology and technology in keeping with its slogan that it 'puts learning first'.

Products designed specifically to assist early *literacy* learning have been central to the company's business since its inception when its founder Michael Wood designed a toy to help his young son master phonics. Today LeapFrog products are readily available world-wide and, in the US at least, have a significant presence in schools. Parents we spoke to who mentioned the brand most often referred to their children's familiarity with LeapFrog's interactive books, DVDs and Leapster learning games. The 'personalised tools' and toy/web hybrids are too recent to have been known by parents we spoke to in 2009. However, the 'personalising' and 'monitoring' elements of the products are where the company sees its future. The so-called 'LeapFrog Learning Path Strategy' and LeapWorld (see below) are central to this vision (Chiasson, 2010).

We first encountered LeapFrog products in our ecological surveys of parenting resources and our interviews with parents. Susequently, the process of network tracing from product packaging led us to the online space of LeapFrog Enterprises where we discovered the centrality of this space to the company's operations. As a virtual commercial space the website enables online retailing of the products. More importantly, from an educator's perspective, it promises to 'add value' to children's and parents' interaction with the company and its products. From a geo-semiotic perspective, a published case study of the re-development of the corporate website, launched in 2003, provides some insight into the way that *spatialization* was implicated in the strategy adopted by the company to increase the website's appeal for parents (Busse Design USA, 2000). The design brief was 'to maintain a steady balance between both the *academic expertise* and the *creatively playful* aspects of LeapFrog and its products' (p. 2, italics added) while also providing an 'increased focus on the educational component of LeapFrog and its products' (p. 9). A key objective of the re-design was to provide 'new parent-focussed site sections' (p.9). Here a priority for LeapFrog was:

> to establish *clear, age-specific paths* to product information. Web pages holding product information would in turn provide contextual access to the associated *developmental and curricular information* associated with each product (Busse Design USA, 2000: 3, italics added).

The design company accordingly devised the LeapFrog Learning Guide which 'allows users to browse product collections in the four target age groups by skill set as it teaches users how to leverage leapfrog products to promote lifelong learning' (p. 3). That is, this set of learning

pathways, explicitly designed for parents of specific age groups of children, spatialized the online commercial space in particular ways that had semiotic and ideological dimensions associated with high-status educational values such as developmental sequencing and measurable progress.

At the time of writing in late 2010, information for parents on this website remains clearly spatialized. For example, materials are divided into in five age-specific sections labelled infants, toddlers, preschool, kindergarten and grades 1-2. Each of these web spaces in turn is separated into four sub-sections labelled activity time (activities), quick printables (work sheets to print), ideas and insights (articles) and learning tips. Finally, each of these sections in turn is further sub-divided into four sections that are labelled and colour coded as *learning for life* (green), *language and literacy* (yellow), *mathematics* (blue), and *science* (aqua) (see LeapFrog Enterprises, 'Parents – Preschool', 2001-2010).

Preschool literacy in LeapFrog spaces

If we examine more closely the website spaces specifically devoted to *pre-school literacy*, what do we find? From a literacy perspective, there is a strong focus on early reading and emergent writing. For example, there are hyperlinks to 21 language and literacy activities that focus on the topics such as developing phonics skills (e.g. saying and recognising vowel sounds or consonant blends), learning the alphabet, building vocabulary (e.g. creating compound words), and writing letters and words. The articles section links browsers to a total of six language and literacy articles and they all focus on reading. Three of the 'learning tips' focus on reading comprehension. The two included below illustrate how these tips are explicitly *pedagogical* as they instruct parents how to engage in a process likely to encourage valued literacy practices:

> *Learning Tip: Comprehending stories*
> As you read new books or bedtime stories to your child, periodically stop to ask your child to recount what's happened in the story so far. Start with the main components of the story: beginning, middle and end.
> Once she is familiar with this, she can try to make more specific recollections, such as: *Who was the main character? What problem did the character have? How did the character solve his or her problem? What was the most exciting part of the story?*

> *Learning Tip: Build comprehension strategies*
> To foster more interpretive and analytical thinking, talk with your child about why certain actions or events take place in a story and what motivates characters to behave the way they do. Ask your child to predict the ending, or to make up a new one.

From the perspective of geosemiotics, it is interesting to note that one learning tip, titled 'Writing corner', explicitly recommends arranging the home to provide a dedicated space for writing:

> Set up a writing corner in your child's room or in some quiet corner of your home. Stock it with paper, crayons, pencils, markers, alphabet books and traceable letters. Encourage your child to practice writing alphabet letters.

More generally, a distinguishing feature of the web space is the way it directs and hyperlinks browers to other LeapFrog 'learning systems' (e.g. the Tag™ learning system) and the 'Leapfrog Learning Path'. For example, parents are explicitly advised to connect their children's 'learning system' 'to your computer often to ensure your child's Learning Path is

up to date' (LeapFrog Enterprises, 'LeapFrog Learning Path FAQs', 2001-2010). That is, the online space is constructed as being important because it *connects* parents with information about their children's use of the products. Flows of information gleaned from a child's activities with the toys are uploaded to the website and are transformed into a *semiotic representation* of the child's so-called 'learning path' that parents can view and assess. In brief, parents are advised that that each child's 'personal learning path' will provide them with:

- Detailed views into your child's learning progress
- Insights into the skills your child is exploring
- Recommendations to expand the learning
- Related articles and learning ideas (LeapFrog Enterprises, **'**LeapFrog Learning Path Demo', 2001-2010).

The LeapFrog Learning Path, then, is a significant development in the company's bid to connect their online and offline commercial spaces and products. Connectivity between parents to *monitor and measure* their children's development, and to *assess* this relative to a child's 'current age level'. In a climate of high-stakes testing of school-readiness in literacy in the early years this provides a potentially powerful incentive for parents to consider participating in this development. Indeed, the company promises that it will make visible for parents the 'skills your child is learning' and provide a personalised, 'custom-tailored' 'roadmap' to their 'learning and cognitive development' (LeapFrog Enterprises, 'Learning Path. Frequently Asked Questions', 2001-2010). A second development-in-progress that revolves around online spaces is LeapWorld™ which is described as 'a safe, online world for kids aged four to nine' in which all aspects of the curriculum will be covered:

> In LeapWorld, kids play and learn with online games that reinforce core literacy and math skills as well as introduce new subjects like science, language skills, and social studies (Chiasson, 2010).

Taken together, electronic interactive toys from this company enable children to find opportunities for 'innovative, personalized play that is possible only in the combined online and offline experiences LeapFrog offers' (Chiasson, 2010) while parents can be kept informed about how their children are 'progressing' as they use the products to 'develop' in a sequential and successful manner.

This brief examination of one brand of electronic interactive learning toys readily available in commercial spaces has illustrated how the texts (e.g. labels, product packaging, linked web sites) that a company assigns, puts on display and circulates work to position parents as learners who need to become more 'expert' about early literacy learning and then explicitly supports them to do just that. So, while parents living in particular places may be led up material 'bricks' pathways to suburban retail outlets that stock LeapFrog products, they are simultaneously led up a virtual 'clicks' pathway to the company website in order to support children's learning needs. At the same time, the design of online spaces serves to construct commercial providers as being credible and responsible brokers of authoritative information and advice about early years learning, especially in the highly valued formal curriculum 'core' areas of maths and science and language and literacy.

Concluding comments

I have described how a geo-semiotic research perspective can alert educators to the significance of how spaces designed for parents and children are described, navigated and

understood. Using illustrations from spaces managed by two global companies, I have described some of the ways in which these commercial spaces are designed and promoted to encourage parents and carers of young children to visit them, navigate them and use them. I have also shown how both companies have been keen to encourage parents of young children to access, interact with and move between both material *and* virtual spaces that make up their 'global brandspace' in order to enhance the perceived quality of their experiences with those brands.

From an educational perspective, it is interesting that there is evidence that both companies are attuned to the changing policy landscape in which people are envisaged as needing to become learners from birth onwards and throughout their lives. Using a geo-semiotic lens, I have demonstrated that both companies also demonstrate a desire to foster the notion that 'learning happens everywhere'— in all available social spaces—whether this be in the play area of the local shopping mall or in the car while playing with an interactive toy. As the toy company is at pains to point out:

> *Learning happens everywhere*—in the car, at the grocery store, and in your own back yard. Embrace each and *every learning moment* with tips and activities designed for your preschool or nursery student. (Leapfrog Enterprises, 'LeapFrog Parents', 2001-2010, italics added)

Moreover, tips on how to do just that, included on the parents' section of the website, explain how to take advantage of such 'teachable moments' while 'on the go' with children during daily activities and travels:

> Point out familiar items in the environment while you are taking a walk, running errands or riding in the car. Even a stop sign can become what educators call a *teachable moment*. Depending on your child's age, the stop sign can be used to teach the color red, the names and sounds of *s, t, o* and *p,* the word *stop* or that the sign is a hexagon. Look for teachable moments when you are on the go with your child (Leapfrog Enterprises, 'Learning Tip: Teachable moments', 2001-2010).

This is a typical example of the ways in which such companies are using online commercial spaces to 'add value' to their offline products and services. In the process, they assume an authoritative pedagogical stance in regard to the education of parents about children's early learning and foreground the importance of literacy and numeracy development in the early years. Here, for example, they suggest ways to help children to learn the names and sounds of letters, the word 'stop' as it appears on stop signs, and that stop signs are hexagonal in shape.

In short, spaces on the world-wide web are increasingly being designed to provide explicit support for parents in charge of preschool children's education and care. In contrast, we found that stores we audited were unlikely to provide much detailed information about educational products even when the products were clearly displayed and we made direct inquiries about them. Rather, it seemed as if the displayed products were expected to 'speak for themselves' or that parents needed to look elsewhere for information. Store personnel were rarely seen or encountered, and seemed to know very little about the products, or else they actively discouraged our questions about them. This poses a dilemma for parents and could effectively lead them from the material space of the shop, or the information and URLs printed on product packaging, to virtual spaces in order to find out what they want to know even when they may have initially preferred *not* to follow that pathway. As one parent put it, although the store shelves were full of products, 'you just don't know what's out there, unless you go to the website'.

We do not wish to suggest that parents necessarily subscribe to the messages and advice promoted online by advertisers and retailers. Indeed some of the practices described by parents we interviewed, and that we observed in the field, suggested that commercial spaces were responded to in various ways: they were embraced, used with caution, avoided and lamented. Nonetheless, our findings suggest that there are likely to be increasing pay-offs for parents who source information and resources about early learning from *both* material *and* virtual spaces and hybrids of both. And, regardless of how parents respond to the changing commercial landscape, we would argue that a geo-semiotic analysis of the spaces they occupy in material and virtual space can provide educators with useful insights into how the contexts for early years' learning are being shaped by commerce. While literacy scholars are already doing important work in regard to the centrality of popular media culture for young children's play and learning (e.g. Marsh, 2005), our point is that this work could usefully be augmented by more detailed studies of the material and virtual commercial spaces devoted to early literacy and learning that are encountered by families in daily life. This would seem to be especially important in policy contexts in which parents are being urged by governments and commerce alike to educate themselves about, and take responsibility for, their children's academic success from birth.

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Figure 1: Kids' Club Membership Form, Westfield Group, Australia.

Figure 2: We are Family booklet cover, Westfield Group, Australia.

Figure 3: We are Family Booklet, p. 38. Westfield Group, Australia.

Figure 4: Poster at Playworld, Gumtree Plaza, Australia.

Figure 5: Playworld Rules, Gumtree Plaza, Australia.

[i] *Parents' networks: the circulation of knowledge about children's literacy learning* was an Australian Research Council-funded Discovery Project (DP0772700) conducted between 2007 and 2010. Researchers were Chief Investigators Sue Nichols and Helen Nixon and Research Assistant Sophia Rainbird, University of South Australia, Australia and Partner Investigator Jennifer Rowsell, Brock University, Canada.

[ii] 'The Westfield Group is the world's largest listed retail property group by equity market capitalisation. The Group has interests in and operates a global portfolio of 119 high-quality regional shopping centres in Australia, New Zealand, the United Kingdom and the Unites States., valued in excess of $61 billion. Westfield works with approximately 23,700 retailers in 10.5 million square metres of retail space.' (The Westfield Group, 'Corporate. About Us', 2008).